GOVERNMENT OF ZAMBIA

STATUTORY INSTRUMENT NO. 18 OF 2020

The Compulsory Standards Act
(Act No. 3 of 2017)

The Compulsory Standards (Potable Spirits) (Declaration) Order, 2020

IN EXERCISE of the powers contained in section 11 of the Compulsory Standards Act, 2017, and on the recommendation of the Board, the following Order is made::

1. This Order may be cited as the Compulsory Standards (Potable Spirits) (Declaration) Order, 2020. — Title

2. The compulsory standard set out in the First Schedule is declared as a compulsory standard. — Declaration of compulsory standard

SCHEDULE

(Regulation 2)

Zambian Compulsory Standard ZS 808

SPECIFICATION FOR PORTABLE SPIRITS

1. Scope

This Zambian Compulsory Standard prescribes the safety requirements, in the methods of sampling and testing for ethanol from fermentation intended for direct human consumption.

2. Terminology

In this Standard unless the context otherwise requires—

"applicant" means the manufacturer or importer seeking approval of potable alcohol. The applicant shall be an existing legal entity within the Republic of Zambia;

"approval" means attestation by the ZCSA that a particular brand type of potable spirit satisfies the requirements of this compulsory specification;

"conformity of production" means proof that potable spirit offered for sale has been manufactured under conditions conforming to applicable factory requirements as prescribed by ZCSA and will continue to comply with the requirements of this compulsory standard;

"declaration report" means a report that is issued by an accredited conformity assessment body, indicating the equivalence of products or standards;

"ethyl alcohol (ethanol)" means ethyl alcohol, also called Ethanol, pure alcohol, grain alcohol, or drinking alcohol, is a volatile, flammable, colourless liquid produced by the fermentation of carbohydrates with a molecular formula of C2H5OH;

"potable spirit" means an alcoholic drink which is suitable for direct human consumption; usually being a mixture of neutral or fine spirit, water and other adjuncts as provided in clause 3.2, 3.3 and 3.4.;

"Proof of conformity" means documented evidence of conformity with the requirements of this compulsory standard: and

"ZCSA" means the Zambia Compulsory Standards Agency as established by the Compulsory Standards Act, 2017 (Act No. 3 of 2017).

3. Requirements

3.1 Safety requirements

3.2 Ethyl alcohol content

The ethyl alcohol content in potable spirits shall be between 34 percent and 55 percent by volume, at 20 °C when determined according to AOAC Method 957.03. The tolerance limit (relative standard deviation) for ethyl alcohol content shall be ± 0.5 percent of the declared strength. The specific gravity shall range from 0.9549 to 0.9592

3.3 Permitted food additives

Spirits may contain food additives which are prescribed in ZSCXS 192.

3.4 Taste and aroma

The spirit shall possess the characteristic taste and aroma associated with the product Potable spirits may also be flavoured with fruit or other botanical substances that are intended to impart the characteristic taste and aroma associated with the product. Such additions shall not be injurious to health.

3.5 Hygienic conditions

Spirits shall be manufactured in premises built and maintained under hygienic conditions. The handling equipment like tanks, bottling machines and packing equipment shall be hygienically clean. In all cases ZS 034 shall apply.

3.6 Chemical requirements

When tested the chemical characteristics of potable spirits shall conform to the requirements specified in Table 1, Table 2, and Table 3.

TABLE 1 MAXIMUM LIMITS FOR ORGANIC IMPURITIES IN POTABLE SPIRITS

Characteristic	*Requirements*	*Methods*
Total acidity, percent m/v (as tartaric and acetic acid)	0.04	AOAC 945.08
Volatile acidity, percent m/v(as acetic acid)	0.02	AOAC 945.08
Esters mg/L, (as ethyl acetate),	13.5	AOAC 972.07
Aldehydes, mg/L	2.3	AOAC 972.08
Furfural, mg/L	0.36	AOAC 960.16
Methanol, ppm	20	AOAC 958.04
Fusel oil, mg/L	3.1	AOAC 959.05
Isopropanol and tertiary butyl alcohol	No precipitate shall form	AOAC 935.16
Ash, percent m/m,	0.041	AOAC 920.48

TABLE 2 MAXIMUM LIMITS FOR METAL CONTAMINANTS

Characteristic	*Requirement*	*Method*
Copper as Cu, mg/L	2.0	AOAC 967.08
Lead as Pb, mg/L	0.1	ZSISO 6633
Iron as Fe, mg/L	8.0	AOAC 970.12/ 970.13
Cadmium, mg/L	1.0	ZSISO 6561

TABLE 3 ORGANOLEPTIC REQUIREMENTS FOR POTABLE SPIRITS

Property	*Requirements*
Clearness	Clear, free of suspension and sediments
Colour	Characteristic or the type of spirits
Odour	Characteristic odour
Taste	Characteristic taste

4. Sampling and Analysis

4.1 Sampling

The method of drawing representative samples of the material and criteria for conformity shall be as prescribed in BS 5309 parts 1 and 3.

4.2 Analysis

All analysis shall be carried out by the appropriate methods referred to in Tables 1, 2 and 3.

NOTE: Quality of reagents unless otherwise specified analytical grade reagents shall be used

5. Packaging, Marking and labelling

5.1 Packaging

Potable spirit shall be filled into clean glass bottles or new food grade containers made from materials which do not affect the product safety and quality. Each bottle or container shall be adequately sealed to prevent leakage contamination or adulteration of the content.

The net volume of the spirit content in the bottle or container shall be the volume indicated, subject to a tolerance of ± 1 percent on individual bottle, measured at room temperature.

5.2 Marking and labelling

Packaged spirits shall be indelibly and legibly marked in English with the following information:

(a) Brand name and / or trade mark, if any

(b) Common name of the product e.g. whisky

(c) The net volume in ml

(d) The ethyl alcohol content, in percent, volume by volume

(e) The name and address of the manufacturer

(f) Batch number (in code or in clear)

(g) Country of origin

(h) Date of manufacture

6. The applicant shall ensure that each type of potable spirit has been approved by the ZCSA before offering it for sale, in accordance with the requirements of Annex A.

7. The applicant shall inform the ZCSA of any change in content or materials affecting any mandatory requirement in terms of this compulsory specification. In the event of such change/s the ZCSA may, at its discretion, demand that the applicant submit a new application for approval.

8. The applicant shall, on request, provide the ZCSA, within five (5) working days, with satisfactory proof of approval in respect of any type of potable spirit included in the scope of this compulsory standard.

9. The applicant shall, on request, provide the ZCSA, within five (5) working days, with satisfactory proof of conformity of production.

10. Failure to provide such proof shall constitute reasonable grounds for suspicion of noncompliance with the requirements of this compulsory standard

11. EQUIVALENCE OF STANDARDS

Standards issued by different standardization bodies such as National standards bodies, regional standards bodies, International Organisation for Standardisation (ISO), and European Norm (EN), shall only be accepted if it is proven, in the form of a declaration report from an accredited conformity assessment body, to be technically equivalent to this compulsory Zambian standard.

The applicant shall be responsible for obtaining such a declaration report. Proof of conformity with such a standard shall be accepted as conformity with this compulsory Zambian standard

C. B. YALUMA,
Minister of Commerce,
Trade and Industry

LUSAKA
19th February, 2020